Table 1 Distribution of Cuban PPNG and non-PPNG strains from 1995 to 1998

Year	No of gonococci examined	PPNG strains		Non-PPNG strains	
		No	%	No	%
1995	63	33	52.4	30	47.6
1996	21	14	66.6	7	33.4
1997	21	13	61.9	8	38.1
1998	5	1	20	4	80
Total	110	61	55.5	49	44.5

PPNG = penicillinase producing *N gonorrhoeae*.

have been recently evaluated in Cuba with good results (R Llanes, *et al*, unpublished data, 1999).

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Rising HIV prevalence in STD clinic attenders at Chandigarh (north India)—a relatively low prevalence area

EDITOR,—The patients attending the STD clinics are at risk of having concurrent HIV infection. The trends of HIV infection in these patients may reflect the trends of HIV epidemic in the community. We have analysed the HIV status of 981 patients (824 males, 157 females) who attended our STD clinic from January 1993 to July 1999 (about 6½ years). The screening for HIV was done by ELISA. Those who were found positive were tested by repeat ELISA utilising another blood sample and considered HIV seropositive only, if both samples were found positive. The STDs were diagnosed by appropriate laboratory tests. The majority of the attenders had STDs; however, a small but significant proportion of patients had psychosexual disorders and other non-sexually transmitted genital diseases. Four per cent of the 981 patients—that is, 40 patients (26 males, 14 females) were found to be seropositive for HIV. The annual prevalence showed a rising trend (1993, 0.56%; 1994, 4.4%; 1995, 2.4%; 1996, 4%; 1997, 4.4%; 1998, 5.7%; and January to July 1999, 8.7%). The prevalence of HIV seropositivity in different STDs is shown in table 1. Large proportions of seropositive patients were truckers (15/40, 37.5%) and housewives (12/40, 30%). Among 12 housewives, four were wives of truckers. All of the 26 seropositive male patients confessed to at least one sexual contact with commercial sex workers (CSWs). Twenty eight (70%) seropositive patients had one STD, while the remaining 12 (30%) patients had more than one STD; 18 (45%) seropositive patients had STDs with either atypical morphologies or unusual severity, the remaining 22 (55%) presented with usual morphologies.

India is a country with a wide variation in geographical, cultural, and behavioural patterns. This is also reflected in the trends of current HIV epidemic in the various regions of the country. We believe that no other country has such a high intranation variation in HIV epidemic status. Comparison of our data on HIV prevalence with STD clinics of different regions of the country highlights this difference. The high HIV prevalence zones of the country include western and southern zones, where HIV prevalence among STD clinic attenders varies from 15% to 33%.[1–3] On the other hand, in eastern and northern zones, it is still low and varies from 0.2 to 4%.[1 3–5]

In our study we found that a high proportion of HIV positive patients were truckers, who generally acquired infection from CSWs from the highways to Bombay or Chennai, two metropolitan cities of the western and southern zones respectively. These long distance truckers have a high risk sexual behaviour and contribute in the spread of HIV infection throughout the country in a short time.[2 6]

Even though the present figures for HIV seropositivity in STD clinic attenders are not very high, the HIV epidemic in this region is now progressing at an alarming rate. In our study, the prevalence in our STD clinic increased from 0.56% in 1993 to 8.7% in 1999 (to July). This indicates that northern India is entering from a low level epidemic (HIV prevalence less than 5% in STD patients) to a concentrated epidemic.[1] This calls for an immediate vigorous intervention programme to be introduced in this region.

Table 1 Frequency of HIV seropositivity in different sexually transmitted diseases

STDs	No screened	HIV seropositive	Seropositivity rate (%)
Ulcerative STDs			
Genital herpes	188	19	10.1
Syphilis	107	6	5.6
Chancroid	21	1	4.76
Donovanosis	5	0	0
Lymphogranuloma venereum	5	0	0
All ulcerative STDs	322	25	7.6
Non-ulcerative STDs			
Condyloma accuminata	184	13	7
Balanoposthitis	75	2	2.66
Gonorrhea	35	1	2.85
Molluscum contageosum	27	3	11.1
Non-gonococcal urethritis	27	0	0
Vaginosis	23	1	4.3
All non-ulcerative STDs	368	18	4.9
All STD clinic attendees*	981	40	4

*The discrepancy in total is due to the presence of more than one STD in some patients.

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HIV seropositivity in women with syphilis in Delhi, India

EDITOR,—There has been a progressive rise in the prevalence of human immunodeficiency virus (HIV) infection in India, which currently has the largest number of HIV infected people in the world.[1] The spread of HIV is predominantly by heterosexual transmission in India.[2] Sexually transmitted disease (STD), particularly genital ulcer disease (herpes, syphilis, and chancroid), has an important role in the transmission of HIV, and the two have been observed to be interrelated.[3 4] We conducted a pilot study to assess the relation between syphilis and HIV infection among non-pregnant women attending gynaecology and STD clinics of our hospital.

From June 1998 to July 1999, sera from 281 non-pregnant women were tested for syphilis by VDRL (Serologist, India) and confirmed by TPHA (Immunotrep, Omega Diagnostic Ltd, UK). Sera that tested positive for syphilis were tested for HIV without identifying the patient. Individual informed consent for HIV was not obtained as results were not aimed to be linked to the identity of those tested. Serum was tested first with one ELISA/rapid/simple (ERS) assay, utilising either of the these different enzyme linked immunosorbent assay (UBI, HIV-1/2, United Medical Inc, USA, Recombigens HIV-1/HIV-2, EIA, Cambridge Biotech Galway, Ireland, and HIV spot Genelabs Diagnostic, Singapore). Any reactive sample was retested using a different assay. Samples that were reactive in all the three tests were considered HIV antibody positive. A sample that was non-reactive on the first test was considered HIV negative, as was a sample that was reactive in the first and non-reactive in the next test.[5]

Of 281 sera tested, 48 (17%) were seropositive for syphilis. HIV antibody was detected in sera of six (12.5%) patients who were seropositive for syphilis (table 1). None of the 233 patients with negative syphilis serology tested